

REMARKS

Claims 23-44 are now pending in the application. The amendments to many of the claims contained herein are intended to broaden the scope thereof or are of equivalent scope as originally filed and, thus, are not a narrowing amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

In the most recent Office Action, the Examiner has objected to Claims 19 and 20 due to various informalities. However, by way of the present response, Claims 19 and 20 have been cancelled, thereby rendering this objection moot. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-11, 15, and 21-22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Doneen et al. (U.S. Pat. No. 4,906,837). Claims 11-14 and 19-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Stanford (U.S. Pat. No. 6,082,886). Claims 11 and 16-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Daniel (U.S. Pat. No. 4,234,904). These rejections are respectfully traversed.

By way of the present response, Claims 1-22 have been cancelled and Claims 23-44 have been added. Accordingly, the present rejections have been rendered moot.

However, in the interest of expediting prosecution, Applicant offers the following remarks relating to the presently cited prior art.

With regard to the '837 Patent to Doneen et al., Applicant submits that Doneen merely discloses a sensor for monitoring motion of a moving element 59 that employs a glass substrate 52 having a plurality of waveguide channels 54, 56, 58 that convey pulses to read ports 60, 62, 64. The waveguide channels extend from one side of the substrate to an opposing side and detect motion of the object in response to pulse of light reflected back off of the moving element 59. However, Doneen fails to teach or suggest each and every limitation of the currently pending claims. By way of brief illustrative example, Doneen fails to teach or suggest "a first light pipe extending within said substrate from a first location on said first surface to a second location on said first surface, said first light pipe transmitting light from said first location to said second location" (Claim 23), "creating a refractive index boundary between a first material and a substrate forming at least one light pipe contained within said substrate transmitting light from a first location on a first surface of said substrate to a second location on said first surface of said substrate" (Claim 32), "a matrix formed about said at least one light pipe, said at least one light pipe being embedded within said matrix such that said first end is substantially coplanar with a first exposed surface of said matrix and said second end is substantially coplanar with said first exposed surface of said matrix" (Claim 36), or "distorting said first light pipe under a force from the object thereby interfering with said transmitting said light through said first light pipe thereby resulting in a second signal, said second signal being different than said first signal; and detecting said difference

between said second signal and said first signal” (Claim 38). Accordingly, Applicant submits that Doneen fails to anticipate the claimed invention.

Similarly, Applicant submits that the ‘886 Patent to Stanford fails to cure the deficiencies of Doneen and merely discloses an illumination system having a permanently-sealed light source located within the block. The light source transmits light from the source (inside the block) to an exterior surface. Similar to Doneen, Stanford fails to teach or suggest “a first light pipe extending within said substrate from a first location on said first surface to a second location on said first surface, said first light pipe transmitting light from said first location to said second location” (Claim 23), “creating a refractive index boundary between a first material and a substrate forming at least one light pipe contained within said substrate transmitting light from a first location on a first surface of said substrate to a second location on said first surface of said substrate” (Claim 32), “a matrix formed about said at least one light pipe, said at least one light pipe being embedded within said matrix such that said first end is substantially coplanar with a first exposed surface of said matrix and said second end is substantially coplanar with said first exposed surface of said matrix” (Claim 36), or “distorting said first light pipe under a force from the object thereby interfering with said transmitting said light through said first light pipe thereby resulting in a second signal, said second signal being different than said first signal; and detecting said difference between said second signal and said first signal” (Claim 38). Accordingly, Applicant submits that Stanford fails to anticipate the claimed invention.

Finally, Applicant submits that the '907¹ to Daniel similarly fails to cure the deficiencies of Doneen and Stanford. Daniel merely teaches a light emitting fabric having a light source coupled to a plurality of optical fibers. The optical fibers are "gathered together into a bundle (15) at one end of the fabric and illuminated by a light source (17)." Light is emitted through "scratches (14) that pierce the outer coating" of the optical fibers. It can be readily appreciated that Daniel fails to teach or suggest "a first light pipe extending within said substrate from a first location on said first surface to a second location on said first surface, said first light pipe transmitting light from said first location to said second location" (Claim 23), "creating a refractive index boundary between a first material and a substrate forming at least one light pipe contained within said substrate transmitting light from a first location on a first surface of said substrate to a second location on said first surface of said substrate" (Claim 32), "a matrix formed about said at least one light pipe, said at least one light pipe being embedded within said matrix such that said first end is substantially coplanar with a first exposed surface of said matrix and said second end is substantially coplanar with said first exposed surface of said matrix" (Claim 36), or "distorting said first light pipe under a force from the object thereby interfering with said transmitting said light through said first light pipe thereby resulting in a second signal, said second signal being different than said first signal; and detecting said difference between said second signal and said first signal" (Claim 38). Accordingly, Applicant submits that Daniel fails to anticipate the claimed invention. Reconsideration and withdrawal of the present rejections are respectfully requested.

¹ The Examiner continues to cite U.S. Patent No. 4,234,904 rather than U.S. Patent No. 4,234,907, which is listed on PTO-1449 and enclosed in the previous Office Action.

REJECTION UNDER 35 U.S.C. § 103

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Doneen (U.S. Pat. No. 4,906,837). This rejection is respectfully traversed. By way of the present response, Claim 18 has been cancelled thereby rendering the present rejection moot. Withdrawal of the present rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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